STATE OF NEVADA
Department of Administration
Division of Human Resource Management

CLASS SPECIFICATION

TITLE	GRADE	EEO-4	CODE
WEIGHTS & MEASURES METROLOGIST	**34**	**B**	**1.403**

Under general supervision, Weights and Measures Metrologists manage the Nevada Measurement Standards Laboratory; calibrate measures of mass, length and volume against the official State standards; and ensure that the Laboratory remains certified by the National Institute of Standards and Technology (NIST) in order to provide standard calibration services traceable to the U.S. national standards for industry, government agencies, educational institutions, business and research facilities.

Manage the metrology laboratory; schedule the testing of standards; clean, service and repair equipment; provide a clean environment; and maintain the security and verification of standards to provide a comparison for testing weighing and measuring devices on a statewide basis.

Test devices used for weighing and measuring from State, federal and private agencies; receive and prepare devices to be tested; estimate testing or calibration cost for outside agencies; determine equipment, weights or containers to use for testing; calculate specifications and tolerances allowable; determine the suitability of the device; issue certificates to verify accuracy; and determine the inaccuracy of the device and make necessary adjustments or modifications as appropriate.

Advise commercial, industrial, institutional and government users of measurement standards on technical requirements pertaining to measuring systems, standards and test instrumentation; testify in court as an expert witness on calibration procedures and accuracy of standards; evaluate, study and recommend appropriate methods and procedures of measurement in special applications such as moisture content, cryogenic liquid metering, volume of compressed gases, fossil and hydrocarbon fuel heating values and material densities; apprise the NIST of deficiencies in supplied equipment, of added laboratory capabilities, and of emerging new technology needs of State laboratory programs.

Inspect, clean and maintain field equipment; check for leaks, dents and broken glass; inspect values, fittings, piping, pumps and safety lines; and adjust as needed to facilitate equipment use in a safe and accurate manner.

Prepare reports of metrology findings; attach work sheets and calculations to copies of certificates; maintain records and files; forward original certificates to Weights and Measures office; and complete periodic activity reports to document findings and record accuracy of devices tested.

Train Weights and Measures Inspectors in the use of equipment; schedule training sessions; explain procedures; demonstrate use and operation of devices; provide instructions on maintenance and repair; and alert to common problems to provide for consistent operation and maintenance of weights and measures equipment.

Perform related duties as assigned.

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MINIMUM QUALIFICATIONS

***INFORMATIONAL NOTE*:**

* Incumbents must obtain certification from the National Institute of Standards and Technology (NIST) within one year of appointment.

EDUCATION AND EXPERIENCE: Graduation from high school and 15 units of post secondary education in mathematics, statistics or physics and two years of experience in the operation, inspection, maintenance or installation of weighing and measuring instruments; **OR** an equivalent combination of education and experience. *(See Informational Note)*

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):
Working knowledge of: physical science for determining densities and evaluating compounds used in weights; statistics and statistical computations; NIST certification standards and procedures; metric, troy, inch-pound, and apothecary systems of measurement; commercial weighing and measuring devices; metrology laboratory operations; calibration and verification procedures for physical standards; environmental factors that adversely affect laboratory calibration work, and how to mitigate or avoid them. **Skill in:** properly handling and using glass and metal reference standards for calibration of volume measurements. **Ability to:** apply principles of mathematics, physics and engineering mechanics to solve measurement or standards related problems in scientific, commercial or industrial environments where quantities are weighed or measured; evaluate laboratory results, sampling plans and statistical quality and quantity control data and determine the nature and type of corrective action(s) required; properly handle and use glass and metal reference standards for calibration of volume measurements; maintain accurate records and control charts; calculate buoyancy corrections for differing densities; read and use scientific publications and technical reports in the field of metrology; perform gravimetric calibrations; calibrate metal tapes.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
Detailed knowledge of: safety precautions in handling and testing petroleum products; Nevada Revised Statutes pertaining to weights and measures; weights and measures regulations, and adopted and recommended handbooks. **General knowledge of:** personal computer operation including developing spreadsheets. **Ability to:** develop simultaneous equations for surveillance test procedures designed to monitor the values for mass standards between calibrations; properly handle and clean mass reference standards.

This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

	1.403
ESTABLISHED	7/1/71
REVISED:	3/1/72
REVISED:	7/2/75R
	5/28/76PAC
REVISED:	7/1/87-12P
	10/17/86PC
REVISED:	7/1/97P
	6/4/96PC
REVISED:	9/14/12RNC
	9/14/12PC